This nautical chart has been designed to promote safe navigation. The National Ocean Service encourages users to submit corrections, additions, or comments for improving this chart to the Director, Charting and Geodetic Services (N/CG22), National Ocean Service, NOAA, Rockville, Maryland 20852.

Formerly, US Pilot, 1st Ed., No. 1100

SOUNDINGS IN FEET AND FATHOMS

Nautical Chart Catalog No. 4, Panels B, C

14901 LORAN-C OVERPRINTED

LORAN-C OVERPRINTED 14901

LAKE MICHIGAN

LORAN-C
GENERAL EXPLANATION

LORAN-C FREQUENCY 100kHz
PULSE REPETITION INTERVAL
8970 ..... 60,700 Microseconds
STATION TYPE DESIGNATORS: (first individual station letter designators).
M ..... Master
W ..... Secondary
X ..... Secondary
Y ..... Secondary
Z ..... Secondary
EXAMPLE: 8970-Y

RATES ON THIS CHART
8970-X 8970-Y

The Loran-C correction tables published by the Defense Mapping Agency or others should not be used with this chart. The lines of position Overprints have been adjusted based on survey data. Every effort has been made to meet this [modified only accuracy criteria established by U.S. Coast Guard. Mariners, however, are cautioned not to rely solely on the lattices in inshore waters.

NOAA VHF-FM WEATHER BROADCASTS

The National Weather Service stations listed below provide continuous marine weather broadcasts. The range of reception is variable, but for most stations is usually 20 to 40 miles from the antenna site.

Chicago, Illinois	KWO-39	162.55 MHz (Chan. WX-1)
Milwaukee, Wisc.	KEC-80	162.40 MHz (Chan. WX-2)
Grand Rapids, Mi.	KIG-83	162.55 MHz (Chan. WX-1)
Green Bay, Wisc.	KIG-84	162.55 MHz (Chan. WX-1)
Sault Ste. Marie, Mi.	KIG-74	162.55 MHz (Chan. WX-1)
Traverse City, Mi.	KU-22	162.40 MHz (Chan. WX-2)

CAUTION

Temporary changes or defects in aids to navigation are not indicated on this chart.
See Notice to Mariners.
During some winter months or when endangered by ice, certain aids to navigation are replaced by other types or removed. For details see U.S. Coast Guard Light List.

CAUTION

Improved channels shown by broken lines are subject to shoaling, particularly at the edges.

RACING BUOYS

Racing buoys within the limits of this chart are not shown hereon. Information may be obtained from the U.S. Coast Guard District Offices as racing and other privately maintained buoys are not all listed the the U.S. Coast Guard Light List.

CAUTION

Only marine radiobeacons have been established for surface use. Limitations on the use of certain other radio signals as aids to marine navigation can be found in the U.S. Coast Guard Light Lists and Defense Mapping Agency Publication 117.

Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution.
Station positions are shown thus:
O(Accurate location) o(Approximate location)

RADAR REFLECTORS

Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

LORAN LINEAR INTERPOLATOR

NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 6. Additions or revisions to Chapter 2 are published in the Notice to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 9th Coast Guard District in Cleveland, Ohio or at the Office of the District Engineer, Corps of Engineers in Chicago, Illinois and Detroit, Michigan.
Refer to plotted regulation section numbers.

CABLE AND PIPELINE AREAS

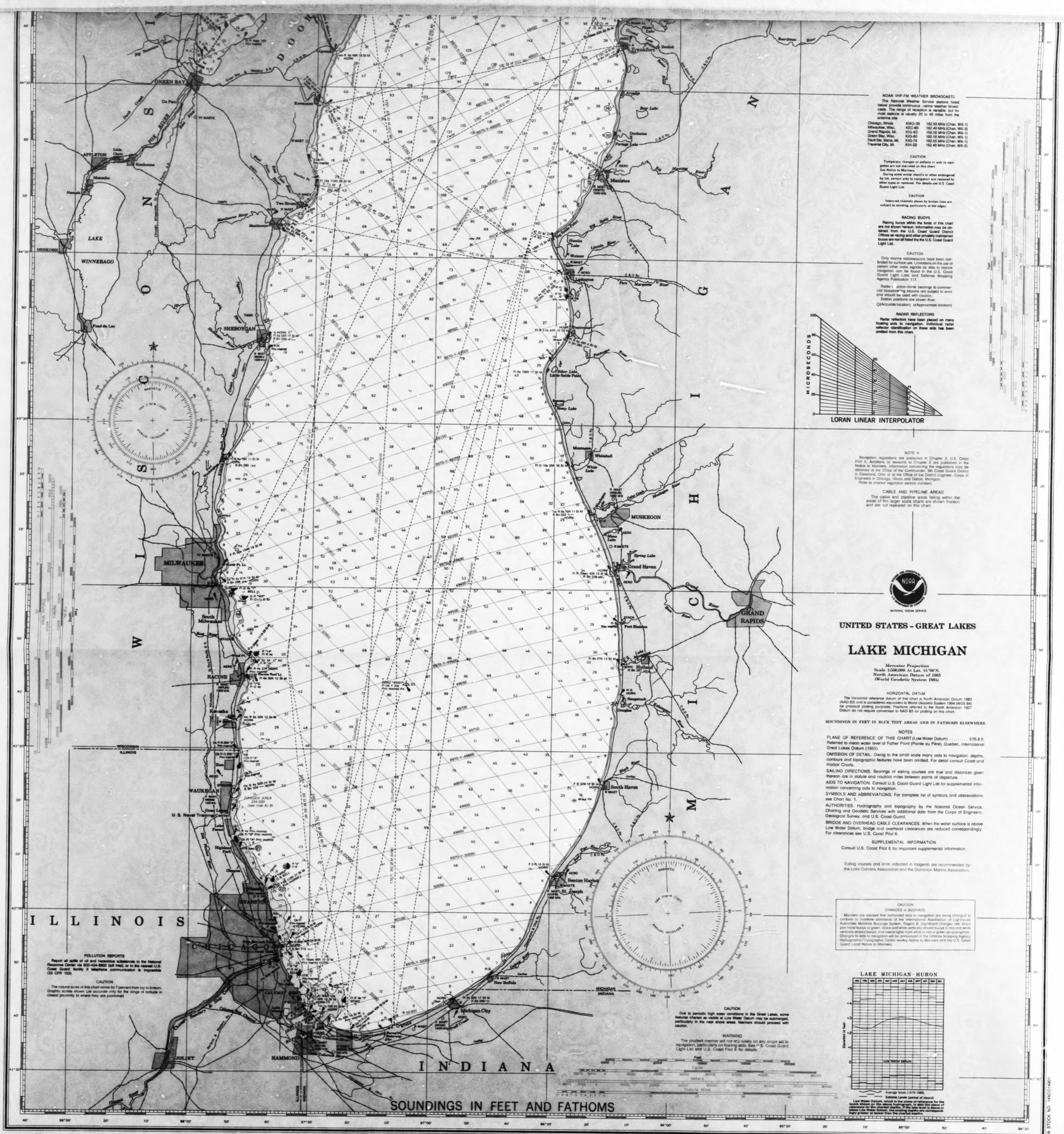
The cable and pipeline areas falling within the areas of the larger scale charts are shown thereon and are not repeated on this chart.

NATIONAL OCEAN SERVICE

UNITED STATES - GREAT LAKES

LAKE MICHIGAN

best copy available



NOAA VHF-FM WEATHER BROADCASTS

The National Weather Service stations listed below provide continuous marine weather broadcasts. The range of reception is variable, but for most stations is usually 20 to 40 miles from the antenna site.

Chicago, Illinois	KWO-39	162.55 MHz (Chan. WX-1)
Milwaukee, Wisc.	KEC-80	162.40 MHz (Chan. WX-2)
Grand Rapids, Mi.	KIG-63	162.55 MHz (Chan. WX-1)
Green Bay, Wisc.	KIG-65	162.55 MHz (Chan. WX-1)
Sault Ste. Marie, Mi.	KIG-74	162.55 MHz (Chan. WX-1)
Traverse City, Mi.	KIH-22	162.40 MHz (Chan. WX-2)

CAUTION

Temporary changes or defects in aids to navigation are not indicated on this chart. See Notice to Mariners.

During some winter months or when endangered by ice, certain aids to navigation are replaced by other types or removed. For details see U.S. Coast Guard Light List.

CAUTION

Improved channels shown by broken lines are subject to shoaling, particularly at the edges.

RACING BUOYS

Racing buoys within the limits of this chart are not shown on the chart. Information may be obtained from the U.S. Coast Guard District Offices as racing and other privately-maintained buoys are not established by the U.S. Coast Guard Light List.

CAUTION

Only marine radiobeacons have been established for surface use. Limitations on the use of certain other radio signals as aids to marine navigation can be found in the U.S. Coast Guard Light Lists and Defense Mapping Agency Publication 117.

Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution.

Station positions are shown thus:
(Accurate location) (Approximate location)

RADAR REFLECTORS

Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 6. Additions or revisions to Chapter 2 are published in the Notice to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 9th Coast Guard District in Cleveland, Ohio or at the Office of the District Engineer, Corps of Engineers in Chicago, Illinois and Detroit, Michigan. Refer to charted regulation section numbers.

CABLE AND PIPELINE AREAS

The cable and pipeline areas falling within the areas of the larger scale charts are shown thereon and are not repeated on this chart.

NOAA

NATIONAL OCEAN SERVICE

UNITED STATES - GREAT LAKES

LAKE MICHIGAN

Mercator Projection
Scale 1:500,000 At Lat. 44°00'N.
North American Datum of 1983
(World Geodetic System 1984)

HORIZONTAL DATUM

The horizontal reference datum of this chart is North American Datum 1983 (NAD 83) and is considered equivalent to World Geodetic System 1984 (WGS 84) for practical plotting purposes. Positions referred to the North American 1927 Datum do not require conversion to NAD 83 for plotting on this chart.

SOUNDINGS IN FEET IN BLUE TINT AREAS AND IN FATHOMS ELSEWHERE

NOTES

PLANE OF REFERENCE OF THIS CHART (Low Water Datum) ..... 576.8 ft. Referred to mean water level at Father Point (Pointe au Père), Quebec, International Great Lakes Datum (1955).

OMISSION OF DETAIL. Owing to the small scale many aids to navigation, depths, contours and topographic features have been omitted. For detail consult Coast and Harbor Charts.

SAILING DIRECTIONS. Bearings of sailing courses are true and distances given thereon are in statute and nautical miles between points of departure.

AIDS TO NAVIGATION. Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.

SYMBOLS AND ABBREVIATIONS. For complete list of symbols and abbreviations see Chart No. 1.

AUTHORITIES. Hydrography and topography by the National Ocean Service, Charting and Geodetic Services with additional data from the Corps of Engineers, Geological Survey, and U.S. Coast Guard.

BRIDGE AND OVERHEAD CABLE CLEARANCES. When the water surface is above Low Water Datum, bridge and overhead clearances are reduced correspondingly. For clearances see U.S. Coast Pilot 6.

SUPPLEMENTAL INFORMATION

Consult U.S. Coast Pilot 6 for important supplemental information.

Sailing courses and limits indicated in magenta are recommended by the Lake Carriers Association and the Dominion Marine Association.

CAUTION
CHANGES in BUOYAGE

Mariners are advised that authorized aids to navigation are being changed to conform to maritime standards of the International Association of Lighthouse Authorities Maritime Buoyage System, Region B. Significant changes are: black port hand buoys to green; black-and-white vertically striped buoys to red and white vertically striped buoys; and colored lights from white to red or green as appropriate. Changes to aids to navigation will be announced in the Defense Mapping Agency Hydrographic/Topographic Center weekly Notice to Mariners and the U.S. Coast Guard Local Notice to Mariners.

Low Water Datum, shown on the above hydrograph, is the reference for the charted depths. If the lake level is above or below Low Water Datum, the depths shown on this chart are numerically higher or lesser than the charted depths.

POLLUTION REPORTS

Report all spills of oil and hazardous substances to the National Response Center via 800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

CAUTION

The natural scale of this chart varies by 7 percent from top to bottom. Graphic scales shown are accurate only for the range of latitude in closest proximity to where they are positioned.

CAUTION

Due to periodic high water conditions in the Great Lakes, some features charted as visible at Low Water Datum may be submerged, particularly in the near shore area. Mariners should proceed with caution.

WARNING

The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot 6 for details.

Feet
Fathoms
Meters
Statute Miles

FATHOMS 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
FEET 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100
METERS 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

8th Ed., June 17/89 ■

14901
LORAN-C OVERPRINTED

CAUTION

This chart has been corrected from the Notice to Mariners published weekly by the Defense Mapping Agency Hydrographic/Topographic Center and the Local Notice to Mariners issued periodically by each U.S. Coast Guard district to the date shown in the lower left hand corner.

Published at Washington, D.C.
U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE

(Lake Michigan)
SOUNDINGS IN FEET & FATHOMS - SCALE 1:500,000

14901
LORAN-C OVERPRINTED

DMA STOCK NO. 14MCO14901

C 55.4/8/7: 14901

best copy available